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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,536

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EXAMINER

NDUBIZU, CHUKA CLEMENT

ART UNIT

PAPER NUMBER

3743

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/591,536	Applicant(s) LENOIR, PATRICK	
	Examiner CHUKA C. NDUBIZU	Art Unit 3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on through November 3 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>090106</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “10” has been used in fig 3 to designate both gas tube and air tube. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the gas tube being located inside the air tube and also the detachable connection devices must be shown or the features canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

Art Unit: 3743

number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “9” has been used to designate both fixed pipe and aperture. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

The disclosure is objected to because of the following informalities: page 5 line 5 recites "connected the ones" instead of "connected to the ones".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 3743

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honger 3,021,893 in view of Koziol 4,762,530. Honger teaches the invention as claimed (fig 1), an appliance for providing air and gas to a gas burner comprising a back tube 5 for receiving air and gas to be combusted, said appliance comprising a gas tube 3, said gas tube comprising an aperture (where 4 passes through in fig 1) for providing gas inwards into the back tube, characterized in that said aperture of said gas tube is provided with a first part (2 to 1) of a detachable connection device, for receiving a second part (end of 5) of said detachable connection device provided to said back tube for allowing gas from said gas tube to enter said back tube (fig 1).

Honger does not specifically disclose an air tube surrounding the back tube but he discloses an air inlet to the back tube 6. The air would come from some kind of enclosure or from the surrounding atmosphere.

Koziol teaches an appliance for providing air and gas comprising an air tube 15 surrounding a back tube 11; said air tube comprising a first aperture (end of 15 near the burner) for receiving said back tube of a gas burner 18. Providing air tube would enable

Art Unit: 3743

the user to more accurately control the air input into the back tube since the air tube can be connected to a controlled blower, which is a common practice well known to one of ordinary skill in the art.

With regard to, (claim 2) Koziol teaches an appliance wherein said aperture of said gas tube (end of 47) and said first aperture of said air tube (end of 15 near burner) are substantially aligned; (claim 8) Koziol teaches an appliance wherein said gas tube is located inside said air tube (see fig 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Honger's appliance by including the limitations taught by Koziol and recited above in order to provide an appliance in use with a burner where air supply can be better controlled so as to provide for efficient combustion.

Claims 3-7, 9-10 and 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honger in view of Koziol and further in view of Riepe et al 6,665,950. Honger in view of Koziol teaches the invention as claimed and as discussed above.

With regard to claim 11, Honger further teaches a gas burner (fig 1) for receiving air and gas to be combusted from an appliance said gas burner comprising a radiant panel 10, said gas burner comprising a back tube 5 for providing air and gas to said radiant panel, said back tube having an orifice 6 for allowing air to enter inside said back tube, characterized in that said back tube being provided with a second part (top of 5) of said detachable connecting device for receiving said first part (2 to 1) of said detachable connection device present at said aperture of said gas tube (fig 1).

Art Unit: 3743

With regard to claim 16 Honger further teaches a gas burner wherein said back tube having at its back end a male tubular organ 1, said male tubular organ comprising a piece of tube penetrating in the back of the back tube 5, said piece of tube constituting an injector organ for injecting gas into said back tube (1 is a gas nozzle column 2 line 57); wherein said orifice 6 is provided at the level of said injector (see fig 1).

With regard to claim 21, Honger also teaches a gas burner being an infrared radiant element (column 3 lines 14-15).

With regard to claim 5 and 15 Koziol teaches an appliance wherein said male tubular organ has on its external peripheral surface at least one annular groove 73 opened towards the exterior, said groove capable of receiving an annular spring (fig 8).

With regard to claim 12 Koziol further teaches the second part 12 of the detachable connection device being adapted to pass through the first opening of the air tube 15 (fig 1).

With regard to claims 3-4 6, 7, 9-10, 13, 18, 19, 20, Riepe teaches an appliance, (claim 3, 13) wherein the detachable connection device is a quick connect coupling (column 4 line 24-26); (claim 4), said second part of said quick connect coupling constitutes a male tubular organ (end of 9 in fig 6) for being received by a female sleeve (end of 24 fig 4) from the first part of said quick connect coupling of said gas burner; (claim 6) wherein first part of said quick connect coupling constitutes a female sleeve (end of 24 in fig 4) for receiving a male tubular organ from said first part of said quick connect coupling of said gas burner; (claim 7, 19) wherein said female sleeve has in its internal peripheral surface at least one annular groove (inner surface of 24) opened

Art Unit: 3743

towards its interior, said groove being adapted to receive an annular spring 27; (claim 9) wherein said gas tube 13 being located outside and adjacent to said air tube 18, said air tube comprising an aperture 17 for communicating with said aperture of said gas tube at 11, (claim 10, 20) wherein said first part of a detachable connection device is provided with at least one sealing gasket for providing a gas-tight 28 coupling between said first and said second part of a detachable connection device.

With regard to claim 14 Riepe teaches a burner wherein said second part of said quick connect coupling constitutes a male tubular organ (top part of fig 6) for being received by a female sleeve (bottom of fig 4) of said first part of said quick connect coupling of said appliance.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Honger in view of Koziol's appliance by including quick connect coupling as taught by Riepe in order to provide an appliance that is easily connected and disconnected without tool for purposes of maintenance or storage.

With regard to the recitation of the male part or female part being the first part or second part; this is deemed a matter of rearrangement of parts. The female is with the back tube in Honger and the male is connected to the gas tube (fig 1); while in Riepe et al the male is with the back tube and the female is connected to the gas tube (fig 3). The Applicant also discloses that the male or the female can be the first part or second part. The rearrangement of parts would obviously not affect the functioning of the device. *In re Japikse*, 181. F.2d 1019, 86 USPQ 70 (CCPA 1950), MPEP 2144.04 VI C.

Art Unit: 3743

Claims 22-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riepe et al in view of Koziol. Riepe teaches the invention as claimed (fig 1-7), a gas combustion device comprising an appliance (fig 1, 3) for providing air and gas to a gas burner 1 comprising a back tube 9 for receiving air and gas to be combusted, said appliance comprising a gas tube 13 and an air tube 16, said gas tube comprising an aperture (at 12) for providing gas inwards to said back tube, said gas combustion device comprising at least one gas burner 1, burner for receiving air and gas to be combusted from said appliance, said gas burner comprising a radiant panel (24 in fig 2), said gas burner comprising a back tube 9 for providing air and gas to said radiant panel, said back tube having an orifice 31 for allowing air from said air tube to enter inside said back tube, characterized in that said aperture of said gas tube is provided with a first part (24 in fig 4) of a detachable connection device, for receiving a second part (top of fig 6) of said detachable connection device provided to said back tube for allowing gas from said gas tube to enter said back tube (fig 3); (claim 24) a gas combustion device, wherein said detachable connection device is a quick connect coupling (column 4 lines 24-26); (claim 25) wherein one of said parts of said quick connect coupling constitutes a male tubular organ (end of fig 6), the other of said parts of said quick connect coupling constitutes a female sleeve (bottom of fig 4), said male tubular organ being adapted for being received by said female sleeve; (claim 26) wherein said second part of said quick connect coupling constitutes a male tubular organ (fig 6); (claim 27) wherein said back tube having at its back end a male tubular organ (top of fig 6), said male tubular organ comprising a piece of tube 11 penetrating in the back of the back tube, said piece of

Art Unit: 3743

tube constituting an injector organ for injecting gas into said back tube (11 is a gas nozzle column 4 lines 49-50); (claim 28) wherein said orifice 31 is provided at the level of said injector (fig 3, 6); (claim , 30 31) said gas burner comprising an annular spring 27 being received in said annular grooves of said female sleeve (fig 4); (claim 33) wherein said gas tube 13 being located outside and adjacent to said air tube 16 (fig 3), (claim 34); wherein said first part and/or said second part of a detachable connection device is provided with at least one sealing gasket 28 for providing a gas-tight coupling between said first and said second part of a detachable connection device (fig 3 and 4); (claim 36) where in the gas burner is an infrared radiant element (column 2 line 66).

However, Riepe does not teach a combustion device wherein said air tube comprises a first aperture for receiving said back tube of a gas burner, said air tube comprising a second aperture for communicating with said aperture of said gas tube, said first part of a detachable connection device extending to the inside of said air tube; (claim 23) wherein said aperture of said gas tube and said first aperture of said air tube being substantially aligned; (claim 29) wherein said male tubular organ has on its external peripheral surface at least one annular groove opened towards the exterior, said groove being adapted to receive an annular spring; (claim 32) wherein said gas tube is located inside the air tube, (claim 35) wherein said second part of said detachable connection device being adapted to pass through said first opening of said air tube.

Koziol teaches a combustion device wherein said air tube comprises a first aperture (end of 17 fig 1) for receiving said back tube 11 of a gas burner, said air tube

Art Unit: 3743

comprising a second aperture (lower end of 15) for communicating with said aperture 47 of the gas tube, said first part of a detachable connection device 12 extending to the inside of said air tube (fig 1); (claim 23) wherein said aperture of said gas tube 47 and said first aperture of said air tube being substantially aligned (see fig 1); (claim 29) wherein said male tubular organ has on its external peripheral surface at least one annular groove 73 (fig 8) opened towards the exterior, said groove being capable of receiving an annular spring; (claim 32) wherein said gas tube is located inside the air tube (fig 1); (claim 35) wherein said second part 43, 44 of said detachable connection device being adapted to pass through said first opening (top end of 15) of said air tube (fig 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Honger's device by including the limitations taught by Koziol and recited above in order to provide a burner unit that will be more compact easier to handle since the back tube is inside the air tube and could be manufactured and assembled at a minimum cost as taught by Koziol (column lines 55-56).

Conclusion

The prior art made of record in the attached USPTO 892 and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHUKA C. NDUBIZU whose telephone number is (571)272-6531. The examiner can normally be reached on Monday - Friday 8.30 - 4.30.

Art Unit: 3743

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Rinehart can be reached on 571-272-4881. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chuka C Ndubizu/
Examiner, Art Unit 3743

/Kenneth B Rinehart/
Supervisory Patent Examiner, Art
Unit 3743

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